

CUBIT Capability Proposal

Technical Area

Geometry, Meshing, Infrastructure, GUI, Graphics, etc..

Technical Lead

Cubit Developer in charge of technical area

Geometry	Brett Clark
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MRD Description

Describe the capability in terms of how a user would see it.

Continued development of Collapse Surface to provide multi-surface partitioning and compositing. Continued work on making partitioning more robust.

SRS Description

What needs to be done by Cubit developers to implement this capability? Break the tasks into steps if applicable. (Steps should be on the order of 2 man-weeks or more)

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| <ol style="list-style-type: none">1. Enable the map-meshed based split curve algorithm in Collapse Surface2. Calculate multiple splitting curves and partition the surfaces.3. Partition multiple surfaces and then determine how to composite the surfaces when surface ids may change in the process. |
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Justification

Describe why this is important and what impact it will have if it is implemented. (or not implemented).

Continued work on SRS 3.6.2 as well as major bugs #5234 and #5555. Collapse surface will work for certain cases but it is currently limited and somewhat tedious. Much of the current lack of robustness is due to problems with the facet based partitioning methods. Robustness could possibly be improved by using the interoperable imprinting Brett Clark has been working on otherwise additional efforts need to be put into tolerance calculations for facet based operations.
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Resources

Who will work on this

Time estimate

How much time will it take in man-weeks

Targeted Release

10.2 (August 06), 10.3 (March 2007), 10.4 (August 2007), Future (beyond FY07)

Karl M.	2 man months (risky)	10.2
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Submitted By:

Karl Merkley	17-March-2006
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Date: